PB-216 227

GLENWOOD MINNESOTA WASTE TREATMENT PLANT OPERATING REPORT

Glenwood Waste Treatment Plant
Glenwood, Minnesota

November 1968

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National Technical Information Service
U. S. DEPARTMENT OF COMMERCE
5285 Port Royal Road, Springfield Va. 22151

PB 216 227

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WASTE TREATMENT PLANT
OPERATING REPORT

Month November 1968

Day	Date	Flow MGD	Temp. Raw	Temp. Ditch	5 Day B.O.D. ppm Raw	5 Day B.O.D. ppm Eff.	5 Day B.O.D. ppm %Red.	C.O.D. ppm Raw	C.O.D. ppm Eff.	C.O.D. ppm %Red.	Total Solids ppm Raw Total	Total Solids ppm Raw Volatile	Total Solids ppm Eff. Total	Total Solids ppm Eff. Volatile	Susp. Solids ppm Raw Total	Susp. Solids ppm Raw Volatile	Susp. Solids ppm Eff. Total	Susp. Solids ppm Eff. Volatile	Settleable Solids ml Raw	Settleable Solids ml Eff.	Kjeldahl N_2 Raw	Kjeldahl N_2 Eff.	NH_3 N_2 Raw	NH_3 N_2 Eff.	Nitrate N_2 Raw	Nitrate N_2 Eff.	Total Nitrogen Raw	Total Nitrogen Eff.	Total Nitrogen %Red	Phosphate Raw	Phosphate Eff.	Phosphate %Red	
F	1	358																															
S	2	358																															
S	3	358																															
M	4	377			3.	2.9	94.0	125	29.	78.	550.	330	492	251	74	74.	2.2	2.2	2.5	0.01	28	25	7.6	3.2	7.5	4.0	12.9	4.45	65.5	5.7	5.1	9.5	
T	5	377				3.2	91.9	125	34.	84.	550.	300.	450.	300	84.	84.	1.1	1.1	2.7	0.01	7.3	0.8	11.7	0.6	1.7	2.5	20.2	3.9	81.5	6.7	5.7	15.	
W	6	377						125	34.	84.	565.	300.	455.	260.	75.	75.	1.7	1.7	1.6	0.01	5.2	0.6	11.2	0.5	2.1	3.2	18.1	4.3	76.3	6.6	6.1	7.9	
T	7	377			11.0	2.6	76.4	120	27.	78.	565.	345.	430.	250.	102	102	1.6	1.6	2.1	0.01	3.0	1.34	11.25	3.6	1.8	4.9	21.	6.8	67.6	9.0	5.8	35.	
F	8	376			13.5	2.0	85.	262	29.	89.	630.	430.	470.	330.	96.	96.	2.3	2.3	3.6	0.01	1.25	1.3	9.35	0.5	1.7	6.0	14.9	7.8	59.4	9.9	5.8	41.5	
S	9	376																															
S	10	376																															
M	11	376			37	12.2	67.4	191	39.	79.	510.	345.	365.	245.	112.	110.	2.8	3.8	8.0	0.01	12.4	1.25	17.8	0.5	2.5	6.3	32.6	8.1	75.	7.3	5.4	26.	
T	12	376	54	52	46.	6.2	86.5	202	43.	78.	545.	395.	340.	275.	93.	80.	3.6	3.6	3.4	0.01	2.8	1.3	8.75	0.45	3.1	6.2	20.6	7.9	61.5	7.0	6.2	10.7	
W	13	376	54	48	26	1.8	93.	124	19.	79.	465.	310.	316.	205.	94.	94.	2.2	2.2	2.0	0.01	9.6	1.7	13.4	0.6	2.8	6.9	25.	9.8	60.5	9.1	5.5	39.	
T	14	380	54	52	8.	1.25	84.5	109	38.	65.	420.	265.	382.	220.	40.	40.	2.2	2.2	1.8	0.01	11.5	1.7	12.8	0.08	2.3	6.5	26.5	8.3	68.6	7.2	5.5	35.	
F	15	384	54	52																													
S	16	384																															
S	17	384																															
M	18	384			54	1.0	48.1	151	14.	92.	420.	350.	355.	275.	65.	65.	1.4	1.4	2.1	0.01	9.7	1.2	8.0	0.35	3.3	7.2	21.95	8.6	68.7	6.75	5.05	25.	
T	19	384	48	48	71	2.1	97.0	136	33.	76.	425.	335.	325.	270.	30.	25.	1.7	1.2	—	0.01	3.2	1.8	3.0	0.25	3.0	9.0	34.	10.	58.7	7.2	5.1	34.	
W	20	384	48	48	64.	1.6	99.	205	28.	86.6	420.	320.	260.	245.	52.	52.	2.4	2.4	1.5	0.01	[illegible]	[illegible]	[illegible]	[illegible]	2.45	7.1	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	
T	21	384	46	46	44	2.8	93.5	147	28	95.	415.	355.	440.	220.	72.	72.	2.0	2.0	3.0	0.01	4.25	0.9	10.2	0.4	2.3	5.5	18.6	6.8	64.	6.7	4.8	29.	
F	22	384	50	48	45.5	0.7	98.2	182	37.	80.	[illegible]	390.	[illegible]	935	64.	64.	2.2	2.2	3.0	0.01	10.4	1.1	11.1	0.2	2.05	8.7	19.45	10.	48.5	7.0	5.6	20.	
S	23	384	52	50																													
S	24	384																															
M	25	384			58	27	95.3	193	36.	81.	335.	270.	265	245.	53.	53	1.8	1.8	2.5	0.01	9.2	1.3	14.	0.12	9.1	7.2	24.3	8.7	67.	6.2	5.5	11	
T	26	386	50	50	61	2.8	96.4	204	37.	82.	390.	350.	310	260	61	61.	3.5	3.5	2.6	0.01	2.5	2.2	10.4	2.5	2.5	2.4	10.4	7.2	65.	10.2	7.0	30	
W	27	384	50	48	25.	3.3	96.	208	42.	81	380.	265	300.	170.	71	71.	4.9	4.9	2.0	0.01	1.25	2.1	10.6	2.7	2.6	10.5	26.8	5.8	78.	7.4	6.4	7.8	
T	28	382																															
F	29	382																															
S	30	382																															
		376	46.3	45.1	729	29	97.0	244	34.1	86.0	518	348	441	274	77	75	2.4	2.4	3.1	0.01	8.5	1.2	12.1	0.63	2.2	6.4	23.1	7.90	65.8	7.8	6.1	21.7	Average
		393	56.0	54.0	1160	3.3	99.0	547	48.0	95.0	645	430	490	260	118	110	4.9	4.9	8.0	0.01	12.4	2.20	17.8	2.7	3.2	9.0	28.5	10.0	81.3	10.2	7.0	41.5	Maximum
		335	45.0	45.0	45.5	0.7	94.0	175	28.0	78.0	335.	235	300	170	52	52	1.1	1.1	1.5	0.01	2.8	0.25	7.6	0.2	1.7	1.05	12.9	3.9	48.5	5.7	4.1	3.5	Minimum

= average flow

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Springfield VA 22151

GLENWOOD MINNESOTA
WASTE TREATMENT PLANT
OPERATING REPORT

Month November

Day	Dept.	General Information: Weather Temp. Max	Temp. Min	Description	Precip	Daily KWA Used	Channel Data: Dissolved Oxygen Brush No.1 before	Brush No.1 after	Brush No.2 before	Brush No.2 after	pH	Solids: Sus	Solids: Sett.	Solids: Index	Sludge Removal: No. of Loads	Gal.	% Solids	Lbs. Solids	Remarks
1		42	16	Sun + Cold		560					8.0	2290	410	178					M.P.D.
2		42	26	Sun		560													11/4/68 Motor on new Tube
3		52	28	Sun		560					8.0	2320	630	272					11/11/68 Flakes in NPW started
4		53	34	Cloudy		560						2250	500	219					11/18/68 oven Temp Too high.
5		47	34	Rain	.08	560						2420	—	—	8	9000	1.05	675	11/25/68 Effluent 0.9 pecal coli Raw 1240 per ml.
6		35	30	Clear	T	560					8.0	1970	535	219	8	8300	1.01	520	
7		32	26	Clear		560						1930	470	238					Data on Sludge hauled
8		33	31	Cloudy		560													
9		32	24	Rain		560													11/6/68 10,460 ppm Vol. S. 7,980
10		34	31	Rain		560													11/7/68 10,140 " " - 8030
11		36	33	Rain		560						2160	550	301	3	3000	0.88	214	11/12/68 8,790 " " 6,970
12		32	15	Rain		560						2220	620	281	8	8000	2.98	550	11/13/68 9,770 " " 7,420
13		26	10	Rain		560						1970	500	254	8	9000	0.95	631	11/14/68 9,480 " " 7,470
14		28	27	Rain		560						1950	445	240	7	7000	1.01	590	11/15/68 10,130 " " 7,810
15		33	23	Sun + Snow	.22	560													
16		33	20	Snow	.10	560													
17		32	32	Snow	.10	560						1760	430	244					
18		32	24	Cloudy + Snow		560						2130	470	221					
19		35	15	Cloudy		560						1990	530	266					
20		29	12	Pc	Trace	560						2180	580	266					
21		42	24	Rain	1" Snow	560						2350	550	234					
22		40	32	Rain Pc		560													
23		43	35	Rain Cloudy	.14	560													
24		37	26	Cloudy		560						2490	580	233					
25		32	20	Cloudy		560					8.0	2480	770	309					
26		32	19	Cloudy		560						—	660	—					
27		42	10	Cloudy		560													
28		37	15	Pc		560													
29		30	15	Rain Pc		560					8.0								
30		45	22	Rain Pc		560													
31																			
				Total		15860					8.0	2180	550	248					Monthly Average
												2550	770	309					Maximum
												1760	410	178					Minimum

2.